

Pest Update (April 1, 2010)

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Any treatment recommendations, including those identifying specific pesticides, are for the convenience of the reader. Pesticides mentioned in this publication are generally those that are most commonly available to the public in South Dakota and the inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product's use on a particular pest or plant. Products requiring a commercial pesticide license are occasionally mentioned if there are limited options available. These products will be identified as such but it is the reader's responsibility to determine if they can legally apply any product identified in this publication.

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Plant development for the growing season

We are ahead of last year, and many past years, as the forsythias are just beginning to bloom in Brookings, a display that normally appears the third week of April. Many of our early spring treatments, the first apple scab spray for

example, that start in mid-April may be sooner, at least East River. West River is still a little behind.

Treatments to do now

Spruce needleminer – the larvae will begin moving to form their webbed nest and resume their feeding – a spray of high-pressure water will knock them off the tree though be sure to rake up the fallen needles (and larvae) after the spray. Remember to spray inside the canopy, not just the exterior. Actually “power washing” the lower canopy of the spruce is a good way of cleaning off all the dead and dying needles as well as some insects and diseases. Be aware the tree will appear a little more open afterwards!

Tent caterpillars can be treated right now by pruning. Tent caterpillars, eastern, forest and western, are common defoliators of mountainash, cherry, crabapples and plums. If you look at one of these trees right now you might find these globs of what appears to be molten glass around the twigs. These are the egg mass to the tent caterpillar (see picture). If these egg masses are pruned off and destroyed (don't just throw them on the ground, unless the mice eat them the eggs will still hatch) you'll save the tree from defoliation. The new egg



masses do look like molten glass, very smooth and shiny. If the egg masses are a gray to white and have lots of holes in them, they are last year's egg masses and not a threat to your tree.

Treatments to begin soon



Apple scab – The apples and crabapples buds are just about to swell so the treatment window is very soon for apple scab. Apple scab is a common disease of apples and crabapples and an infection results in discolored leaves that begin to fall in mid to late summer. While the damage occurs then, the time to begin treatments is very soon. The first spray of Captan, a commonly available fungicide, should be applied when the buds are just beginning to

open. Treatments will have to continue on a seven to ten-day interval until the weather begins to dry, usually mid-June. This first spray is the most critical, miss this one and the rest will not matter!

How many fruit trees do I have to buy to have fruit?

This is the question I receive every spring so here are the pollination requirements for the fruit trees we plant in South Dakota.

Self-fruitful – these fruit trees and shrubs are able to pollinate themselves and you only need the one plant to have fruit set.

- European plums (Stanley and Mount Royal)
- Sour cherries
- Apricots (except for the two cultivars Sungold and Moongold)
- Peaches and nectarines
- Strawberries
- Raspberries
- Currants (except black)
- Gooseberries
- Grapes

Self-sterile – these fruit trees and shrubs will not accept their own pollen and must be pollinated by a different cultivar, not just a different plant of the same cultivar. Just having two Haralred apples, for example, is not enough. The trees must be two *different* cultivars, Haralred and Sweet Sixteen for instance. The two trees should also be within 50 feet of one another. While two different cultivars are required, not every combination of cultivars will yield fruit. Haralson apples, for example, cannot serve as a pollinator for Haralred apples, as the two cultivars are closely related. Some cultivars are pollen sterile, meaning they do not provide pollen for other trees. Two examples of pollen sterile trees are the South Dakota pear cultivars Gourmet and Luscious. They will accept pollen from other trees but not produce viable pollen so a third cultivar such as Parker must be planted to ensure fruit on all three pears. Finally many self-sterile trees do produce some fruit even if grown alone. You might find that a Honeycrisp apple tree still produces some apples even if there are no apples or crabapples nearby.

- Apple and crabapples (they can serve as pollinators to each other)
- Pear
- Hybrid plums (Toka is a great pollinator)
- Apricots (Moongold and Sungold, other cultivars are self-fruitful)
- Sweet cherries
- Blueberries
- Nanking cherry

This does not mean all these fruit trees and shrubs will grow throughout South Dakota. Sweet cherries have limited hardiness and except for some of the zone 5 locations in the state, are not reliable producers. The same is true for peaches and nectarines. Blueberries may be hardy, at least the cultivars out of Minnesota

such as Northblue, but they are demanding of acidic soils and perform very poorly on sites with a pH above 6.5.

And be careful what fruit trees and shrubs you buy

This last weekend I found the following fruit trees for sale, none have much of a chance of surviving our South Dakota winters. These fruit trees include Bartlett pear, Elberta pear, Winesap apple, Yellow Delicious apple and Red Delicious apple. While some of these cultivars may survive in the few areas of South Dakota with mild winter weather; Yankton, Sioux Falls, Hot Springs, as examples, most of these trees will die before the end of their first winter. Many of the chain stores buy nationally and, unfortunately, ship plant materials that are not reliable hardy to our state. Buyers should use caution when selecting plants from these seasonal gardening departments and check to be sure the plants they are selecting are hardy to USDA Hardiness Zone 4.

E-samples



A follow-up to the article in the last Update on the amount of squirrel injury that have been reported around the state; I received pictures of a few trees that were stripped of bark on the trunks and branches. This picture is a hackberry tree that the squirrels chewed the bark from the trunk and branches. Squirrels seem to be attracted to hackberries and this sort of injury is common throughout the Great Plains.

Samples received

Clay County

Please identify the problem with JeanAnn's spruce. It was turning brown last summer and there were streaks of brown all winter.

There may be other factors in the decline of this tree that could not be identified from the sample. I noticed that the last year's shoot growth was much less than the previous year's and there was excessive shredding of the two-year old needles. These are often symptoms of problems that begin underground though as blue spruce ages this will begin to occur. At about 20 years in the landscape, many blue spruces begin to decline. However, I was also able to find a sizeable mite population as evident by the eggs clustered on base of the needles and twig. She may want to consider treating the trees with an oil spray in about another week or two as the eggs hatch. This will require two applications about ten days apart and will reduce, but not cure, the problem.

Davison County *What is wrong with this Colorado blue spruce and Black Hills spruce? The blue spruce is discoloring and the Black Hills spruce has banded needles.*

The blue spruce appears to be mostly winter burn. I did find a few spruce bud scales on the twigs though not enough to either cause browning nor even treat. The buds seem to be in good condition so I would advise waiting to see if the tree recovers this spring. Placing mulch around the tree would probably be helpful in reducing competition with the sod and increase resource availability to the spruce.

The Black Hills spruce appears to have lirula needlecast. This is a disease that seems to appear more often on white spruce than blue spruce and one of the early symptoms is banding. I'll need another week to be sure of the problem so will update in the next report

Yankton County *Please identify these trees and problems.*

Here you go!

Bag 1

- #2 Ponderosa pine with winter fleck
- #5 Scots pine with winter fleck (and in poor health besides)
- #21 Austrian pine (with what looks to be deer browsing)
- #29 Concolor fir

Bag 2

If there was one, it was not inside the box

Bag 3

- #1 Amur maple
- #6 Siberian elm
- #8 Mulberry
- #16 Littleleaf linden
- #32 Green ash

Pam's sample

Correct on the symptom diagnosis of dothistroma needle blight. However, give me a few more days to identify the fungus; however, just based on the symptoms I'd say you are correct.

Scott's sample

This pine was covered with pine needle scale and rhizosphaera needlecast disease. I do not suggest treatments for the scale but he should treat for the needlecast disease this spring.